Claims

1. The structural function claim of the socket shaped receptacle of this device that receives the end of the grip and shaft of the golf club, combined with the flexible grip clamps that slide over the grip, prevents the golf club from sliding side to side and wobbling when inserting the tee into the ground.
2. The structural function claim of the smooth curved shape of the flexible grip clamps not only holds this devise firmly in place, but provides minimal wear and tear of the soft elastic composition of the golf club grip caused by multiple repeated applications.
3. The structural function claim of the protruding flange of the flexible grip clamp makes it easier for the golfer to remove the device from the golf club grip with his thumb and fore finger.
4. The golf tool structural function claim of the tee chamber accommodates a variety of different diameter golf tees by being at least 25 mm wide. This allows big tees to be used so it is easier to place a golf ball on them.
5. The golf tool structural function claim of the tee chamber that has three platforms to increase stability by minimizing lateral movement of a golf tee during insertion into hard ground.
6. The golf tool structural function claim of the single fold back direction of the hinged ball holder which was created so the prongs move back into the grip chamber and are concealed for safety when stored in the pocket. It thereby prevents damage to the golfer or the fabric of the pocket.
7. The golf tool structural function claim of this device when in the pocket, has no pointed protrusions.
8. The golf tool structural function claim of the curved semi-lunar smooth round prongs of the ball holder tilt down so it scoops a golf ball up off most any surface thus eliminating the need of any clamping device. It slides through the grass like a sled through the snow.
9. The golf tool structural function claim of this smaller lighter simpler functioning device makes it easier and safer for an impaired golfer to tee a ball up without bending over.

Golf tee and ball placement device Background

1. Field of invention

This invention incorporates the golfer with the ability to lift up a golf ball, with out clamping, off most any surface and place it on a tee. It does not need to clamp onto the ball in any way. It also to inserts a golf tee into the ground at any desired depth and then place a golf ball on that particular tee, all without bending over. This device folds up and easily and safely without protrusions, fits into most pants pocket for all day use and storage. Its' small dimensions of three and a half inches by two inches and light weight design, allows the golfer to take it out of his pocket and slide it onto the grip of most any size golf club and perform the tasks of teeing the ball up without bending over. When the tee is still left standing after the shot has been executed, the tee can be retrieved out of the ground by sliding the device over it and picking it up. Double sided tape is placed on the end of the grip and the protective layer is removed to allow the golfer to pick up lose tee's laying on there side. After use, the protective layer is put back over the sticky tape and the club is returned to the bag with the double sided tape ready for re use.

Golfers with limited mobility, or those who want to avoid back problems have found that this device most conveniently picks the ball up and places it on the rubber tee at the driving range. This device allows obese and arthritic or impaired golfers to avoid the pain from bending over to stick the tee into the ground at a desired height and then place the ball on the tee.

2. Description of prior art

Many inventions have been described to allow the golfer to position the tee into the ground to elevate the ball above the grass so it can be cleanly hit by the golf club, all without bending over. Some of these devices can retrieve the tee after the shot. Most of these devices involve a mechanism that places the ball and the tee into the device which is mounted to a dowel shaft or handle so the user doesn't have to bend over to use it. Some have levers with connecting rods to the mechanism to activate the placement process.

The following devices are comparatively large and semi-complicated with multiple moving parts or long shafts. These are described by us patent numbers 3,671,037 to Murdock June 20, (1972), 4,714,250 to Henthorn December 22, (1987), 4,951,947 to Kopfie August 27, (1990) 4,969,646 to Tobias November

13,(1990) 5,080,357 to Wolf Janurary 14, (1992) 5,165,744 to Vogrin November 24, (1992) 5,494,279 to Ahner Februrary 27, (1996) 5,540,432 July 30,(1996) 5,632,696 to Nichols et al. May, 27, (1997) 5,645,498 to Cretella July 8, (1997) 5,707,303 to Berkowitz et al. Janurary 13, (1998) 5,759,117 to Erickson June 2, (1998) 5,913,737 to Park June 22, (1999) 5,928,091 to Corriveau July 27, (1999) 6,004,227 to Peterson December 21, (1999) 6,053,821 to Palmer April 25, (2000) 6,254,497 B1 to Brandt et al. July 3, 2001

It is noted that the device 5,690,558 to Huber does not insert or retrieve a golf tee, but a ball marker instead and it dangerous to carry in the pocket because it has three pointed protrusions of which the prong that inserts into the hole at the base of the grip, or the two prongs at the tip of the movable ball holder. It is further noted that the soft rubber hole wears out and becomes enlarged and dysfunctional shortly after repeated applications. It is also observed that a clamped in golf ball is very difficult to place on an inserted free standing tee.

It is noted that the device 5,765,647 to Hood cannot place a golf ball on a free standing golf tee, nor can it insert and retrieve a golf tee into the ground. Since this is a shaft device it needs to be picked up off the ground after the putting is over.

It is also noted that the device 6,692,374 to Colbo has a dangerous pointed protrusion that, when folded up and placed in the pocket, still threatens to penetrate the fabric of the pocket and or cause injury to the golfer. Furthermore it is noted that it cannot insert a golf tee into the ground and the ball holder prongs are not angled down, rounded, and tapered like the runners of a sled.

It is also noted that the device 6,817,955 to O'Donnell is also dangerous to keep in the pocket of a golfer because of its' cumbersome size and pointed protruding prongs of the ball holder that do not hinge completely out of the way. There are also protrusions from the tee pickup mechanism. The absence of a structure to secure the movement of the end of the golf club grip where it touches to a flat platform of the device is noted. Furthermore the absence of a tertiary stabilizing platform for the tee shaft makes insertion of the golf tee into the ground more difficult.

It is further noted that the device 5,772,533 to Dahlmann June 30,(1998): A. Does not have a shaft or handle and it attaches to the grip of the golf club, however it is unable to pick up a golf ball and place it on a free standing tee.
B. Also, its' size and shape are not conducive to fit in the pants pocket of the golfer.
C, It is further noted that it does not have a tertiary platform to stabilize the tee during insertion.

In addition to the above disadvantages of that particular device, it is very awkward when the golfer wears it on the belt while riding in a golf cart with a playing partner sitting so close by. It must constantly be removed to prevent bruising and constantly re-attached to the belt to use each time. The other tee up devices with shafts or handles that don't stick upright into the ground have to be returned to the golf bag each time after tee insertion before the ball is hit. This is an aggravating waste of precious time. To lay these devices on the ground by the tee off area is self defeating.

Tee insertion and ball placement devices prior to and subsequently from the 5,772,535 Dahlmann June 30, (1998) device do not attach to the golf club grip. The use of the golf club and its shaft as the handle for insertion is desired, as it is time saving and more efficient. The other teeing devices all require the user to manually release the tee and ball by manipulation of a connecting rod built into or onto a long pole or shaft handle.

Objects and Advantages

Accordingly here are several objects and advantages to my invention of the, "tee sticker", the golf tee and ball placement device.

(A.) The fifteen to twenty degree down angle of the prongs of the semicircular, curved in semi-lunar shaped ball holder allows the device to easily be inserted under and around the ball on most any kind of surface from grass to plastic to carpet. These different surfaces are encountered on the golf course and various driving ranges. This provides the golfer the ability to pick the ball up without bending over and place it on a driving range tee or a regular playing tee.

(B.) The fold up hinge mechanism of the ball holder is necessary to allow the golfer to keep the device in his pants pocket.

(C.) The entire design of the device has rounded smooth surfaces everywhere to prevent fabric penetration or wear, while it is being transported within the pants or shirt pocket by the golfer.

(D.) The third platform in the tee chamber, that holds the golf tee shaft, prevents an undesirable wobble of the tee during insertion as the ball won't stay placed on the tee of an off angled (non-perpendicular) inserted tee. This eliminates repeated tee insertion attempts.

(E.) This device has a grip chamber designed to provide a non movable articulation of the golf club grip to the device when in use.

(F.) This device provides the golfer with ease and convenience of attaching and un-attaching itself on and off the various size golf club grips with a flexible two

pronged flat flanged grip clamp. The outward facing flange on this grip clamp allows the golfers thumb and forefinger to easily slide the device off the grip for removal after he places the ball on the tee.

(G.) The socket part of the grip chamber snugly fits to the end of the grip of the golf club and prevents undesirable wobble or unwanted movement when in use.

(H.) The flat smooth rounded surface design of the flange of the grip clamp minimizes abrasion of the grip providing normal longevity of the grip itself.

Further Objects and Advantages are seen on drawings and descriptions.

Brief Description of the Drawings

Fig.1 is a three dimensional isometric illustration of the angled frontal view of a specific illustrative embodiment. Fig. 2 is an actual size of the side view of the specific illustrative embodiment. Fig. 3 is an actual size of the specific illustrative embodiment from a direct front view. Fig. 4 is an actual size direct back view of the specific illustrative embodiment. Fig. 5 is an actual size specific illustrative embodiment viewed from the back just be fore deployment of the tee into the ground and placement of the ball on top of it.

Reference Numerals in Drawings

10. Grip Clamp	12. Main body of device
14. Tee Chamber	16. Ball holder
18. Hinge mechanism	20. Flange of grip clamp
22. Offset bracket of grip clamp	24. support bracket
26. Rounded point of ball holder	28. Lateral side grip clamp
30. Curved arched support bracket	32. Upper tee cap platform
34. Conical notched tee platform	36. Tee shaft support notch 3rd platform
38. Folded up position of ball holder	40. 120' arch of ball holder
42 Grip clamp gap	44. Grip end socket
46. Upper front of tee chamber	48. Bottom of tee chamber
50. No-stick protrusions	52. Tapered curved semi-lunar prong
54. Top of grip clamp	56. Top of grip end socket
58. Upper tee chamber	60. Middle tee chamber
62. Bottom tee chamber	64. Back of ball holder
66. Shaft of golf club	68. Grip of golf club
70. Ball holder	72. Ground (earth)
74.Golf tee	76. Golf ball

Description of the Preferred Embodiment

The entire device is referred to generally as reference numeral 12. The four main parts of this device are referenced as the tee chamber 14, the ball holder 16, the grip socket 44, and the grip clamp 10. The preferred embodiment of this device is illustrated in fig. 1.

The method of operation of this devise starts with it folded up 38 in its' storage location, in the pants pocket. When it is removed from the pocket, it is attached to the grip of the golf club by inserting the but end of the grip into the grip chamber 44. This socket like structure has the important function of stabilizing the grip and shaft of the golf club securely within this device with minimal movement. This device is then firmly attached to the golf club grip by sliding the rest of the grip between the grip clamp 42. The contours and function of the grip clamp prongs 20 are made flexible to accommodate different diameter golf club grips. This device is then snuggly attach to the golf club by the flexibility of the prongs of the grip clamp 10, and the elasticity of the rubber grip. The offset of the grip clamp 22 facilitates perpendicular alignment of the golf club shaft in reference to the base of the grip end socket 44. This allows for the tee insertion into the ground to be perpendicular also. A foreword angle tilt (towards the direction of ball flight) of the tee, can be accomplished by leaning the golf club shaft foreword when inserting the tee into the ground. This may be desired to minimize friction of the surface of the golf ball and the leading edge of the tee.

The design of the tee chambers are critical to maintaining stability of the tee during insertion. A single platform tee holder allows an uncontrollable wobble or movement that will insert the tee at an unwanted angle. This device has three platforms to support the tee during insertion: (1.) A flat upper surface 32 is used to evenly press the tee in, parallel to the golf club shaft, and perpendicular to the surface of the ground. (2.) The conical notched platform 34 snuggly suspends the tee in position before insertion. (3.) The tee shaft support notch 36, which is the bottom platform of the tee chamber, snuggly keeps the tee from moving around during insertion. The desired depth of the tee is simply accomplished by how far one pushes the tee into the ground. This special Platform configuration allows the golfer to lift the tee up out of the ground to a specifically desired height depending on the type of trajectory he wants the ball to follow after hitting it with the driver. The closer down towards the ground, the lower the trajectory desired. The higher

up off the ground the ball is placed on the tee, the higher the trajectory of the ball desired by the golfer. On a windy day, hitting into the wind, the golfer will tend to insert the tee lower down close to the ground. The variable tee insertion depth is an important feature of this device. Especially when being able to lift it up to a desired height.

Tee insertion may not have to occur when the golfer wants to practice on certain driving ranges. In this situation, the golfer is provided with a variety of golf balls in a bin, astro turf carpet, and a perminately fixed rubber tee to place the balls on. This device then fulfills the need to pick the balls up out of the bin and place them on the rubber tee many times in a row during the practice session. The down angled curved tapered shape of the two prongs of the ball holder 16 allows the golfer the ability to simply slide the prongs under and around the balls and easily pick them up for placement on the tee. The shape and contours of the prongs 52 that hold the golf ball has the advantage of not needing scissor movement or flexibility to hold or clamp the ball. They simply slide under it to pick it up. Before the golfer hits the range ball, he simply leans the device on the golf club shaft against a bracket, or his golf bag. Thus the device can be easily reached for and retrieved over and over again without bending over or walking very far.

The design and shape of the tips of the ball holder 26 is curved upwards similar to the runners of a snow sled. This minimizes snagging when the device is slid under a ball on a rough surface with various obstructions (thick grass). Furthermore these tips 26 must be rounded and smooth for safety concerns when stored in the pocket.

The fold up hinge 18 is off set from the main body of the device 12 and 14 to allow the ball holder 16 to fold up and be at rest with the prongs 26 concealed within the safety of the grip chamber44. This is accomplished with an ached range of motion of about 120'. In this particular fold up position, the ball holder 16 is held away from damaging collision type encounters. The structure of the hinge mechanism 18 is a double ball and socket type of permanently fixed hinge.

When the golf ball is in the ball holder 16 see fig. 5, having been placed there by hand or from picking it up, it stays there during tee insertion. Once the free standing tee is in the desired position, the ball is then suspended directly above it. At that time the device is lowered until the ball 76 separates from the ball holder 16. The two smooth bumped protrusions 50 on the back of the ball holder prevents the

ball from sticking within the ring of the ball holder. The prongs 26 of the ball holder are lowered down towards the ground and then slid backward away from the ball and tee.

At this point the device must be removed from the grip of the club and is done so by pushing the thumb and forefinger against the flair of the grip clamp 20. The ball holder is folded up and the device is placed into the pocket until needed again and the golfer hits the golf ball off the tee.